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The Development of Intermediation in French Credit Markets: Evidence from the Estates of Burgundy

MARK POTTER AND JEAN-LAURENT ROSENTHAL

We document how intermediaries shaped markets or, conversely, how market institutions constrained intermediaries. In Dijon, where the Estates of Burgundy's debt amounted to nearly half of all bonds in that small market, there was limited need for intermediaries. In the 1740s the borrowing needs of the province expanded, and the estates began to borrow in Paris, where their debt remained a small fraction of the market, and where they relied on notaries to place their bonds and to create a secondary market. These developments assured the estates' capacity to borrow and thus Burgundian autonomy from the French Crown.

Historians have traditionally viewed French financial development under the Old Regime against the benchmark of the more advanced English case. They have looked for organizations and institutions that had been critical to the growth of English markets, such as stock markets and banks, in order to explain French economic developments.[1] This focus was bound to mislead because other intermediaries, especially notaries, served to integrate eighteenth-century French credit markets.[2] In this article, we examine the growth of the market for the bonds of the Estates of Burgundy between 1700 and 1789. The unique political and financial role of the Estates of Burgundy allows us to chart how intermediaries shaped markets or, conversely, how market institutions constrained intermediaries. We can do so because the estates borrowed simultaneously in two cities, Paris and Dijon, which had distinctly different market institutions.

The Estates of Burgundy were the provincial assemblies of the eastern French province of Burgundy. Though there were three chambers they acted as one in their financial dealings. Their responsibilities included negotiating the province's tax burden with the crown as well as collecting levies and overseeing local expenditures. Their fiscal responsibilities led them to enter into credit markets. From 1660 to 1789 the estates' borrowing increased markedly (from 280,000 livres per year at the outset to 1.8 million livres per

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[1] Velde and Weir, in *Financial Market* for example, take bankers and the bourse as the foci of credit markets in their study of government debt in the eighteenth century.

[2] Hoffman, Postel-Vinay, and Rosenthal, *Priceless Markets*.

year in the 1780s). At first they borrowed in Dijon, the provincial capital, and relied mostly on local investors. But even early on, the estates could not satisfy their peak borrowing needs from local savers, and they relied on informal networks to attract Parisian funds to the Dijon market. As borrowing became more regular and more important, the role of Parisian lenders increased, and in the early 1740s the estates began to place a large part of their debt issues directly in Paris. As a result, Parisian investors were solicited regularly through Parisian intermediaries. It is the different behavior of the estates in the two markets that allows us to identify important dimensions of the growth of credit.

Because officers of the estates kept very detailed records of their borrowing, we can quantify how the market for the estates' debt evolved.[3] We assembled a database on more than 23,000 loan transactions. These include all the initial loans received by the estates and all secondary transactions that were recorded in their registers from 1660 to 1790. As best we can tell after cross-referencing the data with information from the estates' deliberations, the database includes nearly all loans after 1680.[4] For each bond we transcribed its value and dates of contract and of repayment, along with the names of the lender and his or her social indicators, including titles, profession, gender, and residence. We also gathered information on the intermediaries who helped place bonds on the market after 1690 when their identities became regularly recorded, and we compiled data on loan resales. The data on secondary transactions are most complete for those contracts resold in Paris because the legal nature of bonds in the capital required the estates' scribes to record resales. Our data are thus both extensive and comprehensive; they effectively capture the market for the Burgundian Estates' debt as it unfolded in two distinct locales over more than a century.

Two objectives drive this study. By clarifying how intermediation for Burgundian bonds developed, we can better situate the Estates of Burgundy in our understanding of both political and financial institutions in Old-Regime France.[5] We also seek a more general understanding of how credit markets can be created. There may arise a demand for intermediation to which individuals and institutions respond endogenously. Alternatively, the state might intervene and promote formal arrangements, such as a central bank or stock exchange. In exploring either scenario, we want to argue against the common assumption that Old-Regime institutions stunted the development of French credit markets and prevented their growth.

[3] Archives Départementales de la Cote d'Or, [hereafter ADCO] registers C 4573, 4576, 4577, 4578, 4579, 4580, 4581, 4582, 4583, 4584, 4585, 4586, 4587, 4588, 4597, 4598, 4607, 4615, 4616, 4618, 4625, 4626, 4627, 4628, 4631, 4632, 4634, 4635, 4638, 4639, 4640, 4641, 4649, 4654, 4659, 4664, 4668, 4671, 4680, 4685, 4704, 4720, 4721, 4726, 4727, and 4728.

[4] The registers from prior to 1680 are incomplete.

[5] We take a more explicit political approach to the role of the Estates of Burgundy in Potter and Rosenthal, "Politics."

We document that over the course of the eighteenth century the pool of investors in estates' bonds broadened. This evolution requires us to ask how new investors acquired information about the estates. We focus on the intermediaries that placed the estates' bonds and organized the secondary transactions. We then show that the organization of intermediation depended on the importance of the estates in the aggregate markets. We then examine the evidence on the secondary market to argue that by some measure at least, turnover of the estates' bonds was not qualitatively different from the volume of transactions carried out on early stock markets. We conclude that declines in transaction costs were obtained by a mix of deliberate formal actions by the French crown (which benefited the whole financial sector) and by the estates (which improved the appeal of their bonds) and of informal actions taken by intermediaries. We begin however with a brief review of theories of intermediation and some historical background on the rise of the Estates of Burgundy as a major borrower.

The experience of the Estates of Burgundy provides valuable information about the conditions under which intermediation (and in particular brokerage) will arise. Financial exchanges that are not mediated face high transaction costs for many reasons (such as asymmetric information, risk aversion, and physical distance). There is broad agreement that the demand for intermediation will increase as the transaction costs of unmediated exchange increase. Intermediaries can arise to reduce these costs. In this article we focus on two factors that affect transaction costs and thus motivate the development of brokerage: search costs, and competition between markets.

Scholars of financial markets have long studied changes in intermediation. But the scholarship has very often focused on the intermediaries rather than on the final parties to contracts. Thus we have excellent histories of banks, stock markets, and stock brokers, as well as a host of other less common intermediaries. Economic theorists have examined the rise of financial intermediation in a variety of contexts and in particular in the case of brokerage. Others have sought to understand the value of different forms of organization. All these studies emphasize the role of asymmetric information in creating demand for intermediation. This demand arises both in the case of the initial placement of bonds and in the case of secondary transactions. In either case if borrowers, or current holders of bonds, do not know much about who has money to invest, they will have difficulty securing loans or reselling their bonds. Similarly, lenders are unlikely to place funds in bonds about which they have little information.

It is worthwhile to consider the question separately for initial placement and for secondary trades, for these two intermediation functions need not be performed by the same organizations. In the case of the initial placement of bonds, borrowers may want to rely upon an intermediary who provides investment banking services. We take as one of our hypotheses that borrowers will be more dependent on such intermediaries in markets where they are less well known (or have higher cost of communicating with investors).

In the case of secondary trades, the investor who wants to sell a bond either may have to wait a long time before a willing buyer is found or to accept a steep discount for an immediate sale—in this case the bond is illiquid. Not surprisingly investors will demand a premium to hold such bonds—a premium the borrower would rather avoid paying. We consider one key source of illiquidity: asymmetric information. There will be few trades in a security if buyers and sellers cannot find one another, and if potential buyers cannot get some information about the value of the security. There are many ways in which such information can be provided, but which one is picked depends on how much of a security is outstanding. In other words there are thresholds that dictate how liquidity is provided, and these thresholds operate both at the level of a given security and at the level of the market at as a whole.

To begin with, if the market is small enough and all the potential buyers of the security know both one another and the issuer, then intermediaries cannot improve information.[6] Most often, however, the market is not that small and one could increase liquidity by centralizing all the information about supply and demand. The standard solution to the problem of liquidity is a centralized market where all the information about desired trades is aggregated.[7] Yet such markets are costly to set up and maintain. Thus they typically require a minimum volume to survive, creating a second threshold.[8] Hence, institutions that mimic centralized markets will be demanded whenever the volume of trades does not warrant an exchange, but where the number of potential investors is large enough that decentralized communication is not feasible. These institutions need not be formal. For instance, an informal specialist may emerge to hold a book of orders for a particular security.

Although the history of formal (centralized) secondary markets is well analyzed in the literature, the conditions under which alternative institutions arise are less well documented. Our hypothesis is that the demand for resale intermediation increases with market size—where size is defined by the total value of securities outstanding. In small markets the number of participants is small enough that it is not worthwhile to organize a secondary market. Even if there is some demand for intermediation there may only be enough business for one intermediary.[9] In larger markets, however, the volume of trade may sustain more intermediaries.

[6] In this case there may still remain a liquidity problem, but these will be solved not by trading in a security but by borrowing against it.

[7] See Neal, *Rise*.

[8] For an example of an exchange that failed early-on due to insufficient volume, see Hanley, "Business Finance."

[9] We were inspired to think about the interaction between sunk costs and market structure by John Sutton's emphasis on the role of advertisement (durable investment in consumer knowledge) in shaping market structure (see *Sunk Costs*).

Focusing now on a given security rather than on the market as a whole, leads us to a second conjecture. An informal specialist is more likely to arise when an individual bond issue amounts to a small fraction of the total value of debt. In this case, some sort of institution for increasing liquidity is worthwhile even though it does not pay to bear the cost of creating a formal secondary market in that issue. Further, because the market for that security is thin, it is inefficient for each intermediary to keep a book of his own.[10]

On a third level, we want to use the experience of the Estates of Burgundy to examine how competition between markets can assist in the development of intermediation. Here we are inspired by the similarities between the experience of the estates with that of foreign firms that have recently listed their shares on American or British exchanges.[11] To do so they have engaged the services of investment banks in order to create depository receipt programs. The creation of these programs has brought more liquidity to the firms, but it has also often induced them to change accounting procedures and it has put pressure on intermediaries in the home markets to reduce transaction costs.

Because the estates could place their bonds either in Paris or Dijon, and because the holders of Burgundian bonds could resell them either in Paris or Dijon, the intermediaries in the two markets competed. However, the estates were in very different positions in the two markets. In Dijon they were by far the dominant player whereas in Paris they held little sway over the market. We show that to reach Parisian investors, the estates adapted their financial structure to the requirements of the capital's intermediaries. In turn, intermediaries in Dijon responded to the increasing competition from Paris by improving their secondary market. From the perspective of intermediaries the borrowing of the estates had very different consequences in the two cities. The estates' widespread and excellent credit reputation in Dijon probably slowed the rise of intermediation there because the estates did not need much assistance to place their bonds. In Paris the estates had no such reputation. But they arrived in an already large market well served by intermediaries on whom they depended both for primary placement and to create a secondary market. Thus their arrival in Paris added fuel to the growth of the capital's already thriving financial-intermediary networks.

THE BURGUNDIAN ESTATES AND THE CROWN'S DEBTS

The Burgundian Estates were one of many privileged corporations that were central to the organization of the French state. Such corporations, or corps, were either territorial (municipalities and provincial estates), or professional (artisan guilds and venal officer corps).[12] The Assembly of the

[10] This argument parallels the distinction between formal and curb markets in the stock-exchange context.

[11] Domowitz, Glen, and Madhavan, "International Cross Listing."

[12] Farr, *Hands of Honor*; and Olivier-Martin, *Organisation corporative*.

Clergy, to take one of the most prominent examples, comprised the first order of the kingdom in those provinces that had been part of the kingdom the longest (prior to 1561), and it taxed its members to supply funds to the crown.[13] Corps differed from one another in many ways, but shared a common feature in claiming a unique privileged status that defined their relationship both to the crown and to one another in political and financial matters.

The Burgundian Estates' privileges were codified in 1477 when the duchy of Burgundy was annexed to France. Every three years, the estates gathered representatives of all three orders of the province at which time their main function was to negotiate tax levels with the crown. On a superficial level, therefore, the estates acted as a sort of parliament for Burgundy—through them, provincial leaders determined tax levels and administered revenue collections, passing agreed-upon sums to the crown. The privilege of holding estates conferred a degree of financial autonomy on the provincial leaders and enhanced the potential for collaboration between the crown and local elite groups. Yet the preservation of this autonomy was tenuous and depended in part on royal good will.

Privilege was a unique form of property in Old Regime France in that its creation and preservation depended upon the good will of the king.[14] The privileges by which the Burgundian leaders held triennial sessions of estates and managed local financial affairs with some independence were no different. Legally the king could abrogate them should he find such an attack more expedient. Although it is true that the desire to preserve order constrained the crown from undermining such privileges and promoted a strategy of protecting the mutual interests of crown and elite, such political constraints did not change the reality that the crown enjoyed significant leverage should provincial estates attempt to assert greater autonomy. Indeed, in the first half of the seventeenth century the crown worked against the financial autonomy of provinces with estates.[15] Though they were targeted, the Estates of Burgundy avoided the dissolution with which they were threatened and which the Estates of Normandy and, more recently, Dauphiné suffered. Thereafter, however, it was clear that those provincial estates that survived, most prominently those in Burgundy, Languedoc, Provence, and Brittany, did so only insofar as they were useful to the crown's financial needs. Indeed, failing to provide sufficient resources could lead to royal circumvention of local financial autonomy either on an ad hoc or a permanent basis.[16]

In the end, provincial estates and the local financial autonomy that they assured served the interests of both the crown and local elite groups. As the financial needs of the crown grew under Louis XIV, the Estates of Burgundy confronted the seemingly conflicting necessity of meeting the crown's de-

[13] Michaud, *L'Eglise et l'argent*.
[14] Bien, "Offices and State Credit," p. 92; and Bossenga, *Politics*, pp. 1–21.
[15] Bonney, *Political Change*, pp. 344–83; and Major, *From Renaissance Monarchy*, pp. 236–60.
[16] Major, *From Renaissance Monarchy*, pp. 236–60; and Beik, *Absolutism*, p. 132.

mands while still preserving the advantages of the province's privileged status. They turned to the credit market to balance such opposing demands. The estates were able to keep regular taxation low by periodically agreeing to borrow large sums for the crown. Such borrowing increased from 3.56 million livres over the decade 1680–1689 to 6.66 million in the following decade (during the Nine Years' War) and then to 12.01 and 15.14 million livres over the first two decades of the eighteenth century, respectively.[17] Meanwhile, the annual "tax" obligations, which the estates had negotiated to pay the crown (the *don gratuit*, the *exemption*, and the *subsistence*) and which were financed mostly through levies of the land tax (the *taille*), increased at a much slower pace. These remained stable during the 1680s and 1690s at an average of slightly under one million livres per year. The addition of the capitation in 1702 doubled the total annual obligations through 1709, but then that added payment was reduced by 40 percent in 1710. Over the following decade, total annual "tax" payments averaged between 1.5 and 1.6 million livres. Thus, in this time of "squeeze," when the crown urgently sought to mobilize resources to meet the increased costs of warfare, borrowing by the Estates of Burgundy increased at more than twice the rate of the regular "tax" obligations.[18]

To fund these loans the crown allowed the estates to mortgage (and hence keep within their control) the revenues from specified taxes. Early on, this usually entailed allowing the estates to control and earmark entire revenue streams, such as the *octrois de la Saône*, or a series of tolls on goods shipped along the Saône River. Later in the eighteenth century, the crown typically allowed reductions in the estates' regular payments to the crown, with those remissions earmarked for debt servicing. For example when in 1770 the estates borrowed three million livres for the crown, they were allowed to reduce their fiscal transfers to Paris by 300,000 a year until the loan was paid off.[19] The crown was able to benefit from this arrangement by essentially borrowing at lower costs because of the estates' sterling credit reputation; provincial leaders, on the other hand, in particular those with strong ties to the land, benefited by keeping land taxes nominally stable in periods of heightened royal needs.[20] Indeed, local financial autonomy was preserved, and in some ways enhanced, by the expanded financial role of the estates as a major borrower for the crown.[21]

The Burgundian Estates thus found themselves under political pressure to assume debt for the crown. This pressure began during the reign of Louis

[17] Potter and Rosenthal, "Politics," p. 579.

[18] ADCO, C 2982–2983. The capitation was also in place briefly from 1695 to 1698, during which time royal authorities levied it in Burgundy directly as a scaled poll tax. Estimates of how much the crown raised in those years are not available. See Saint-Jacob, *Paysans*, p. 180.

[19] ADCO, C 4568 Deliberation des Elus 21 Mars 1770

[20] For similar developments in Brittany that favored the landed elite there, see Collins, *Classes*.

[21] Potter, "Institutions," Chs. 3–4.

XIV and lasted to the end of the Old Regime. That the estates prospered as a financial conduit for the crown and as a local political force is unmistakable: their indebtedness steadily rose and, in the 1780s, they used their fiscal clout to promote large-scale transport improvement. Yet in the late seventeenth century as the estates' indebtedness rose, they found it increasingly necessary to borrow from beyond the Dijonnais market of local elite investors. Had the estates not found new sources of funds it is likely that their political life would have been shortened.

LENDERS TO THE BURGUNDIAN ESTATES

As suggested previously, the estates broadened the geographical and social diversity of the savers who invested in their bonds. In the seventeenth century, the estates turned primarily toward local Burgundian notables. In the decades following Louis XIV's reign, however, the role of local Dijonnais notables diminished while a broader base of Parisian lenders became more important. Dijonnais lenders dominated among investors through the first decade of the eighteenth century. To be sure Burgundian lenders from outside Dijon also took on a significant share of debt over these decades (Table 1). Nonetheless between 1660 and 1709, over three-quarters of the funds lent came from families, individuals, and institutions within Burgundy.[22] A shift then occurred in the 1720s and 1730s so that by the decade of the 1740s, 54 percent of the funds lent to the estates came from Paris. Thereafter, a majority of the loans were raised in Paris through the decade of the 1780s, and by 1790, approximately 60 percent of all outstanding debt was Parisian-held. At the same time, a shift also occurred in the social identities of those providing funds to the estates (Table 2). The share of funds lent by judicial and financial officers diminished just as the estates began borrowing more of their funds from Parisians. Between 1727 and 1789, the share of funds lent by these two groups amounted to only 19 percent whereas prior to 1713 they had contributed 49 percent of all funds lent to the estates. As their share diminished, that of royal officers, military officers, and nobles grew from a combined total of 17 percent of funds lent (1660–1713) to 36 percent of funds lent (1727 to 1789).[23] Equally striking is the increase in funds lent by individuals in trades, crafts or professions. Their

[22] Our data allow us to assign residences to more than 96 percent of all bondholders accounting for 94 percent of all sums loaned. Burgundian, and in particular Dijonnais, dominance of this market in the earlier decades is clear: In the decade of the 1660s, 91 percent of all funds lent came from Dijon with 4 percent from Burgundy (outside of Dijon). For the decade of the 1670s, the respective figures are 93 percent and 2 percent; 1680, 66 percent and 10 percent; 1690, 71 percent and 10 percent and 1700, 59 percent and 18 percent. For a more extensive discussion on the geographical distribution of the estates' debt, see Potter and Rosenthal, "Burgundian Estates' Bond Market."

[23] Royal officers included officers of the royal household and ministries and the difficult-to-classify *secrétaires du roi* who often had no practical responsibilities.

TABLE 1
GEOGRAPHICAL ORIGINS OF LENDERS TO THE ESTATES

		Dijon	Burgundy	Paris	France	Foreign
	Average Number of Contracts per Year	Percentage of Contracts				
1660–1699	70	81.4	10.9	4.9	0.6	0.1
1700–1719	228	58.5	19.2	14.1	5.0	0.3
1720–1739	75	55.5	16.0	21.0	2.1	1.2
1740–1759	212	34.5	11.7	40.9	4.2	1.7
1760–1779	333	23.4	9.4	50.9	5.9	0.8
1780–1790	425	18.7	11.7	53.9	8.9	1.4
	Funds Lent per Year	Percentage of Funds Lent				
1660–1699	285,775	80.2	10.6	4.0	0.2	1.1
1700–1719	1,050,068	58.2	16.0	16.9	6.2	0.7
1720–1739	329,677	54.3	13.4	24.3	2.1	1.4
1740–1759	903,346	33.1	12.9	40.2	4.1	1.6
1760–1779	1,526,999	24.5	7.5	53.1	6.3	0.6
1780–1790	1,817,053	18.5	9.9	59.1	8.0	0.6

Note: The entries in the last five columns of the table are row percentages.
Sources: The data were drawn from AD CO, registers, C 4597, 4598, 4607, 4615, 4616, 4618, 4625, 4626, 4627, 4628, 4631, 4632, 4634, 4635, 4638, 4639, 4640, 4641, 4649, 4654, 4659.

share rose from 16 percent in the first period to 27 percent in the second.[24] As these shifts were taking place, the total amounts of money that the Burgundian Estates sought from investors also grew over the course of the century.

Many Old Regime public institutions espoused principles of prudential debt management: borrowing in times of stress and running surpluses during times of plenty.[25] The estates were exceptional only in the assiduity with which they implemented these principles. Although they borrowed via perpetual annuities (*rentes perpetuelles*) for which they were under no legal obligation to reimburse the principal, they nevertheless chose to adhere to an announced schedule of reimbursement. Reimbursements and interest payments were funded by mortgaging specific future revenues. When these revenues accrued the loans were reimbursed. Hence their loans, unlike those of the crown, were true sinking funds. New loans, therefore, need not represent increases in total debt load. The figures for loan issues suggest that wars were periods of increased indebtedness and that the overall trend was toward a greater debt load in the last decades of the Old Regime. It is not possible to know what bonds were outstanding in each year because reimbursement dates were not recorded for all contracts. Yet estimates of the estates' debts

[24] Potter and Rosenthal, "Politics."
[25] Le Goff "How to Finance."

TABLE 2
SOURCES OF FUNDS FOR THE ESTATES BY SOCIO-ECONOMIC BACKGROUND

	Numbers of Contracts	Officers	Trades and Crafts	Liberal Professions	Domestics	Military and Nobles	Clergy and Institutions
1660–1699	2,104	67.3	3.0	10.2	2.0	10.5	1.2
1700–1719	4,476	55.7	7.3	10.4	4.2	12.9	2.7
1720–1739	1,482	55.9	5.5	7.4	6.5	12.6	3.1
1740–1759	4,066	39.0	19.5	9.3	5.6	8.6	5.6
1760–1779	6,454	27.7	20.5	9.1	7.5	11.7	7.2
1780–1790	4,185	23.2	23.9	9.4	6.3	14.2	5.9

Note: The entries in the last six columns of the table are row percentages, the omitted categories are women, unclassified royal officers, agriculture, and unknown.
Sources: The data were drawn from AD CO, registers, C 4597, 4598, 4607, 4615, 4616, 4618, 4625, 4626, 4627, 4628, 4631, 4632, 4634, 4635, 4638, 4639, 4640, 4641, 4649, 4654, and 4659.

show that they grew during wars and then fell in peace time.[26] The decline could be dramatic: between 1765 and 1778 the estates reduced their liabilities by nearly half.

During the early part of the eighteenth century when the estates consistently borrowed more than one million livres per year, the province's officials began to search well beyond the rather limited group of local notables for potential investors. As a result, the institutional mechanisms of piecing together a clientele of lenders became ever more important for the estates to meet their obligations to the crown. Beyond offering the financial incentives and the political assurances necessary to attract investors, the estates confronted the mundane logistical issues of relaying information about their debt issues and bridging both geographical and social gaps in the placement of bonds, the payment of interest, and the reimbursement of principal.

The market for Burgundian debt thus underwent significant changes along with an overall broadening during the period captured in our data. Throughout the history of this market, person-to-person contacts through the services of intermediaries remained the key to piecing together a clientele of lenders even as that clientele broadened and as the estates managed to enhance their reputation as a responsible borrower.[27] Meanwhile, the overall institutional framework in which this market evolved remained unchanged. The market existed by virtue of the political balance between the estates and the crown. The crown respected the estates' independence because it found their reputation for creditworthiness valuable, in turn the estates administered their debt in a way to further that reputation and enhance their local political power. Further, each of the estates' bond issues was backed by specific anticipated

[26] Because we know what debts were outstanding in 1790, the only debts for which we lack information are those for which the registers do not mention repayment dates and which were not outstanding in 1790. We assumed that their repayment schedules were the same as those of debts of the same vintage, which had a distribution of durations.

[27] On reputation and the relation between the estates and the crown, see Potter, "Good Offices"; and Potter and Rosenthal, "Politics," pp. 606–11.

tax revenues, and the bonds continued to be marketed by notaries rather than bankers. Hence, we cannot speak of a transition toward a more anonymous and spontaneously developing market. Nonetheless, as the next sections show, there was considerable institutional change at the margin. First, after 1725, the estates and the crown transformed an unpredictable negotiation process into a more systematic process of public finance. Second, the estates expanded their solicitation of investors to Paris. Finally, the estates adapted their debt management to the Parisian legal environment so as to facilitate the development of a secondary market.

THE RISE OF INTERMEDIATION

To survive as a meaningful political entity the estates had to borrow. This was particularly true in the last two decades of Louis XIV's reign when the amount of debt outstanding increased very rapidly. To fund these mountains of bonds the estates could rely only on a narrow range of fiscal revenues, as the crown appropriated the rest. Hence, they were forced to mortgage revenues from ever more distant years, and not surprisingly these bonds matured slowly compared to those they had issued before 1700. After 1725, borrowing continued to expand as the amount of total taxation in Burgundy that was mortgaged increased, but the distance in time between borrowing and repayment remained stable. In fact the standard agreement between the crown and the estates stipulated that the province could keep enough revenue to pay off the bonds in the decade following their issue, and the estates kept to the schedule. The driving force behind the expansion of Burgundian debt was clearly the crown, but the estates also faced practical problems: as their borrowing rose they had to reach more and more lenders. Failing to do so would surely mean the end of the province's privileges. Given the limited amount of wealth available to be tapped in Burgundy, the estates had to broaden their geographical and social reach. Given the cost of travel in particular, broadening the geographical span of lenders presented a serious challenge.

The estates were able to meet this challenge by relying upon the services of different intermediaries. Until the 1720s these were local informal intermediaries, often wives or relatives of financial officials, who were well placed within the community of local notables to narrow the informational divide between estates and lenders. The steady migration of members of important families from Dijon to Paris provided another channel to secure additional funds.

As the challenge of raising ever more money grew, the estates had to look directly to Paris for more of their funds, and notaries became dominant in the mediation of the estates' debt both in Paris and in Dijon. Indeed, by the 1740s the estates had to secure loans from individuals who had little or no direct knowledge of the province's political or financial dealings. Notaries were also instrumental in facilitating trades on the secondary market, which, as we will demonstrate, became a particularly important issue for the estates in the latter half of the eighteenth century.[28]

We leave aside the informal intermediaries of the late seventeenth and early eighteenth century. They offered only a limited range of services. They placed funds with and received payments from the estates for individuals they knew personally. Although these informal intermediaries testify to the spontaneous emergence of market makers, their contribution was limited. The local informal intermediaries had mixed success in expanding the estates' reach to Paris, and they could not create a secondary market. The estates' own financial hierarchy also played a small role in finding lenders. It was not until notaries displaced the informal intermediaries that a secondary market formed and that uninformed lenders began to be attracted to the estates' loans.

Notaries were therefore the most important intermediaries. As we argued earlier, the estates' interactions with notaries depended on two dimensions: first, the extent to which (or the cost by which) the estates could reach lenders directly; and second, the thickness of the market (the proportion of all transactions in the market that related to estates debts). One can see intuitively that, as any bond market as a whole grows, overcoming asymmetric information requires more effort. Hence intermediation should be more intense in larger markets. To the extent that each intermediary has exclusive information about a subset of lenders, as borrowing increases more intermediaries will be involved. Conversely, the thinner the market for estates bonds, the more concentrated the intermediation in those bonds is likely to have been.

The existence of two interlinked markets for Burgundian debt provides an ideal arena to study the circulation of information in Old Regime debt markets. The estates themselves identified notaries as the key intermediaries in the placement of their debt, yet they did not elaborate as to what specific role notaries played. Given that the estates had their debt contracts drawn up by notaries, two possibilities arise. First, notaries provided scrivening services but little mediation. Second, notaries provided both scrivening and informational services. Given that the information requirements of the primary and secondary markets were different, finding that notaries were merely scribes in the primary market does not imply that they played no informational role in the secondary market. To examine their roles, then, we compare their functions in both the primary and secondary markets for Burgundian debt in both Dijon and Paris. We therefore restrict our attention to the years beginning in 1740 when the estates began to market debt in Paris, though the patterns that will be described for Dijon also hold earlier.

[28] For a broad outline of these early changes in intermediaries, see Potter and Rosenthal, "Burgundian Estates' Bond Market," pp. 184–89.

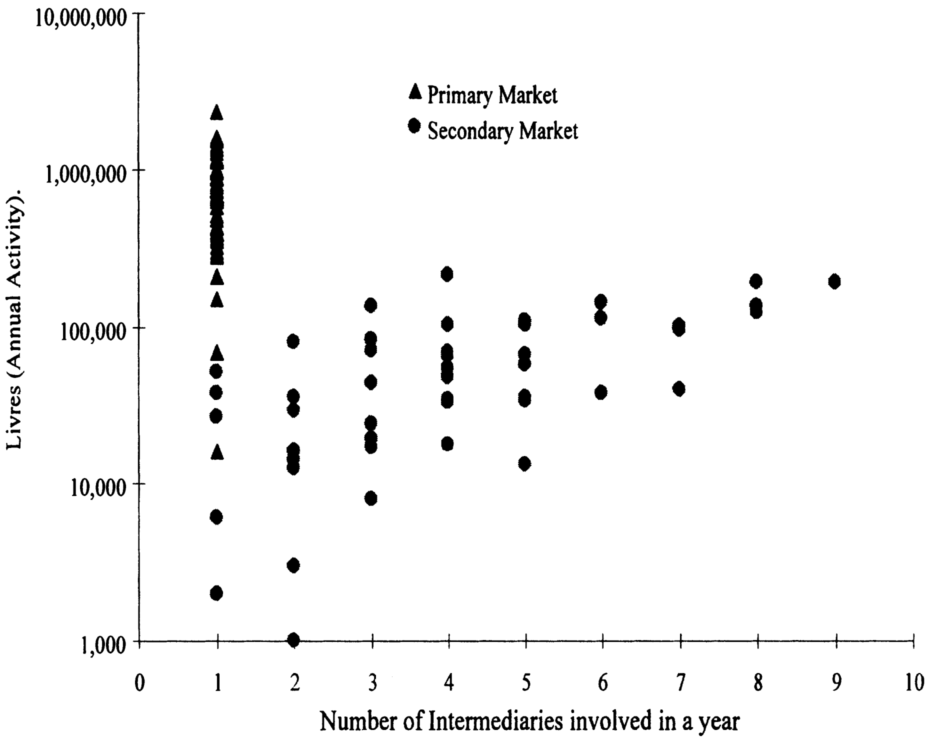

FIGURE 1
INTERMEDIARIES AND THE VOLUME OF ESTATE BONDS TRANSACTED IN DIJON, 1740–1790

Sources: AD CO, registers, C 4597, 4598, 4607, 4615, 4616, 4618, 4625, 4626, 4627, 4628, 4631, 4632, 4634, 4635, 4638, 4639, 4640, 4641, 4649, 4654, 4659.

In Dijon a single notary drew up all of the estates' contracts, despite the fact that there were 14 notaries active in Dijon at any one time.[29] The secondary market, on the other hand, was far less concentrated in Dijon. The most active notary drew up 65 percent of resale contracts, and the activity was spread out among four notaries on average each year. As Figure 1 shows, there was no relation between the amount of activity and the number of notaries involved in initial issues. The relationship between the number of intermediaries and the volume of activity on the secondary market was weak though slightly positive.

In Paris, the reverse patterns held (Figure 2). On average, some 18 notaries drew up initial contracts in any given year. Over the 50 years following 1740, 110 of 113 notaries participated in the drawing up of initial contracts. Further, the share of the most active *étude* (notarial practice) over these 50 years was only 31 percent of all the activity. The secondary market,

[29] More precisely, no more than two notaries drew up contracts in any given year. Two notaries were involved in years when the estates changed notaries.

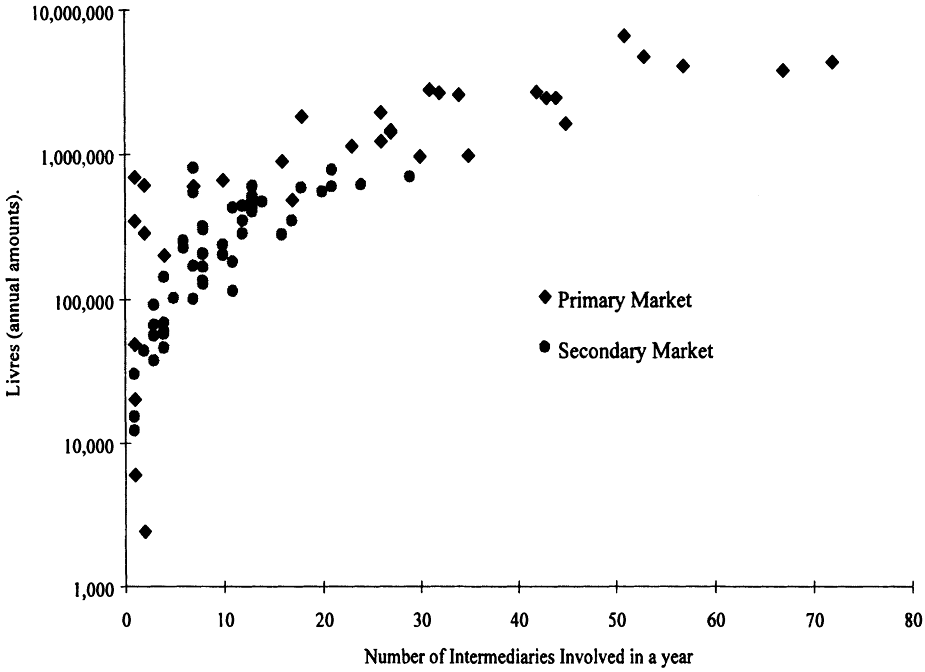

FIGURE 2
INTERMEDIARIES AND THE VALUE OF ESTATE BONDS TRANSACTED IN PARIS, 1740–1790

Sources: AD CO, registers, C 4597, 4598, 4607, 4615, 4616, 4618, 4625, 4626, 4627, 4628, 4631, 4632, 4634, 4635, 4638, 4639, 4640, 4641, 4649, 4654, 4659.

by contrast, was far more concentrated, with half as many notaries participating in an average year and only 35 *études* participating in secondary transactions after 1740. The most active *étude* accounted for 53 percent of the value of all secondary transactions. Finally, in Paris, the relationship between annual levels of activity and the number of participating notaries is quite marked: increased activity required the agency of more notaries.

These different patterns suggest that information flowed in strikingly different ways in Dijon and Paris. The data for Dijon are consistent with the argument that lenders required few informational services (from notaries at least) and that when the estates decided to borrow they were able to mobilize the local sources of capital directly. Notaries were not needed in Dijon as brokers of information. The estates were the dominant borrowers on the Dijon market. In the 1740s the estates' share of the perpetual-annuity market was about half (see Table 3). By 1780 they borrowed 63 percent of the perpetual-annuity funds in Dijon, and that amounted to half of all notarial credit. Their dominant financial position and their public political role made it feasible for them to attract lenders directly. Both

TABLE 3
VOLUME OF NOTARIAL LENDING IN DIJON
(volume of new loans in 1,000s of livres)

	Private Obligations	Private Rentes	Estates Bonds	Total
1740	81	740	631	1,452
1760	106	165	991	1,262
1780	300	473	694	1,467

Sources: For private lending, AD Cote D'Or C 8670–72, 8724–28, and 8780–83. For the estates we give the nine-year average centered on the date for which we sample private credit. Obligations were standard IOUs with a maturity of one to three years, and Rentes were annuities on which repayment was the borrowers' option, they were outstanding on average about 15 years.

because they had to borrow so much and because they had the administrative means to advertise in Dijon, they had little need for intermediaries. So the estates made use of notaries' services simply to draw up contracts. Because drawing up contracts could easily be done by any notary, they only used one.

In the case of the secondary market, notaries appear to have played a more important role. It seems likely that information about resale opportunities was more difficult to diffuse because in each year, each bond issue actually represented a different investment, and small numbers of bonds from each issue came on the market. Notaries therefore had a role to play in matching the buyers and sellers of Burgundian debt contracts, even in Dijon. Because the estates' bonds were so important in the market, most notaries were somewhat involved in this activity. Therefore for Dijon, at least, information and market thickness both seem to play an important role in explaining the structure of intermediation.

In Paris, the estates could not assume that everyone was well informed about their borrowing requirements or their political and financial situation. The estates employed two strategies to reach lenders. Early on, the estates tried to reach Parisians primarily through traditional networks centered on persons with clear Burgundian connections.[30] Most of these lenders subscribed to debt issues via their networks directly in Dijon, and their contracts were drawn up in the offices of Dijon notaries. Though the sums raised in Paris in the 1710s were substantial, the clienteles of Parisians willing to contract with the estates through Dijonnais intermediaries were rather narrow. Accordingly, in the 1740s the estates decided to float bonds directly in Paris. The data suggest that to reach more Parisian lenders, the estates depended on notaries. Indeed in Paris the link between the sums issued annually and the numbers of notaries involved is quite clear. When the estates

[30] Members of the Condé clientele, for example, who would have had few other means of informing themselves of Burgundian bonds other than by through their political and clientele contacts, show up in our data as heavy investors in the first decades of the eighteenth century. See Potter and Rosenthal, "Burgundian Estates' Bond Market."

needed to reach more lenders they required the assistance of a greater number of Parisian notaries.[31]

The estates were aware of their dependence on notaries to reach lenders in Paris. Indeed, in 1742 the estates attempted to cut notaries' commissions in Paris and in Dijon, though without success, as their deliberations indicate:

> Mr. Chartraire de Montigny, treasurer of the estates of the province, [informs us] that the considerable amounts that he must borrow for the province, as instructed by the deliberations of the élus [members of the estates's executive], are being raised only very slowly. Indeed, both Parisian and Burgundian notaries who normally handle the brokerage between depositors and lenders are slowing down and refusing to fulfill the duties of their offices and even turning away those who want to lend their money. It is typical in Paris and elsewhere to pay them a fee for these sorts of loans, and as a consequence they are preventing everyone with money to invest from placing it in the province's coffers . . . .[32]

The estates quickly agreed to restore the commissions to their old levels. One does not know what had prompted the attempt to reduce their fees. The timing of the attempt, coinciding with the beginning of significant sales in Paris, is nonetheless suggestive. Officials of the estates may well have thought that they could issue bonds in Paris in much the same way as they did in Dijon—without recourse to the intermediaries as vehicles of information between them and potential lenders. Given their good reputation they may well have thought that they could force notaries to reduce their fees because they did not require them as intermediaries. Yet as both their deliberations and the connection between notaries and issue volume suggest, the estates were wrong.

For Paris, at least, their failure is easily explained. In the capital there were a large number of public institutions seeking to borrow, and the estates were not the most visible borrower.[33] In fact, in the capital the estates' borrowing contributed little to overall credit. After 1742 they amounted to about 1 percent of notarized loans in Paris. Further, unlike in Dijon, the estates had no direct vehicle to apprise Parisians of their need for funds. Finally, Parisians typically relied on notaries to find out about investment opportunities, be they private or public bonds, because notaries were well informed about financial affairs. Given the limited importance of Burgundian borrowing to Parisian credit overall, the estates could not hope to create a different mediation structure than that which developed.

[31] One cannot appeal to a cartel among notaries to explain this pattern. Indeed activity was unevenly distributed across notaries, and each notary's share was unstable. For other evidence that brokerage services were competitive, see Hoffman et al., *Priceless Markets*.

[32] ADCO, C 4565, 15 September 1742.

[33] One would surely place the crown (through the Hôtel de Ville de Paris), and the Assembly of the Clergy before the Estates of Burgundy. The Estates of Languedoc and Brittany would also have held an equal if not greater position as seekers of Parisian credit.

In effect, when the estates borrowed in Paris they were just like any other borrower and they depended on notaries to bridge the informational distance between them and their lenders. Because each saver typically selected one notary to rely upon, their solicitation of funds required the participation of many notaries.[34] It is no surprise then that when the estates issued bonds in Paris, they were drawn up by as many as 20 different notaries or one-fifth of the entire corporation notarial. Furthermore, as the amount of debt issue rose, the number of notaries increased.

The widespread dispersion of the estates' borrowing activity among Parisian notaries should not obscure the critical role played by notaries in *étude XCII*. The process whereby the notaries of *étude XCII* secured this leadership was historically determined but rather straightforward. The notaries (Roger, Maréschal, and Bro) who succeeded each other in that position were also the successive notaries of the Condé princes who, under the Old Regime, were governors of Burgundy. As we detailed in a previous work, members of the Condé clientele in Paris had been early investors in the estates' bonds, and they tended to have their notarized contracts drawn up with their patron's notary.[35] Officials of the estates, furthermore, also relied upon the services of these notaries for provincial business. Therefore even before the expansion of Burgundian borrowing in Paris was underway, the notaries in *étude XCII* had a significant advantage over other competitors. They were better informed about the province's affairs, and they had already captured a large population of lenders predisposed to lend to the Estates of Burgundy.

The successive notaries who occupied *étude XCII* seem to have played a role similar to that of lead underwriters in current stock issues, releasing information from the issuer (in our case the estates) to the rest of the brokerage community (other Parisian notaries). Unlike the investment banking firms that underwrite financial issues today, Parisian notaries did not guarantee issue prices to the borrowers. Rather, they behaved like contemporary mortgage brokers and charged a finder's fee equal to a fraction of the value of the loan. As the lead brokers, the notaries of *étude XCII* concentrated nearly a third of all bond issues for the estates in Paris between 1740 and 1790. Indeed the pattern of referrals identified by Hoffman et al. suggests that other notaries acquired information about the estates by periodically referring their clients to *étude XCII*.[36]

Secondary trades relied even more heavily on intermediaries than did the process of issuing bonds. Although the bonds marketed by the estates in a given year had similar characteristics, those bonds that were put on the secondary market differed according to the date that they had been issued. Further, there were relatively few of them. In other words, the secondary

[34] Hoffman et al., *Priceless Markets*, Ch. 8.
[35] Potter and Rosenthal, "Burgundian Estates' Bond Market."
[36] Hoffman et al., *Priceless Markets*.

market for the estates' bonds was thin. Matching buyer and seller in secondary contracts was therefore a more complicated affair than was the initial issuing of debts. Moreover, the supply of bonds for resale varied greatly over time, so that some mechanism to reduce information costs was highly desirable. Notaries in Paris at least seem to have arrived at a practice that is not too dissimilar from the way closely held stocks were traded in the nineteenth century.[37] One notary (from *étude XCII*) handled the bulk of secondary sales, acting as the broker for such contracts in nearly 55 percent of the cases. Given the reciprocal structure of notarized brokerage, the share of activity centralized by *étude XCII* was no doubt larger.[38] We imagine that clients who wanted to sell or buy a Burgundian bond alerted their notary who in turn contacted the notary in *étude XCII*. Once a match between a seller and a buyer had been effected, the contract could be drawn up by either the buyer's notary, that of the seller, or by the notary of *étude XCII*. The relative concentration of activity in *étude XCII* therefore reflects both the limited availability of information and the relative thinness of the market. Thus, as we move from primary markets to secondary markets, whether in Dijon or Paris, the value of information becomes more important. And as we move from Dijon to Paris, the importance of Burgundian bonds in the market declines. The intermediary structures reflect these differences.

PROVIDING LIQUIDITY

Beyond concerns for the returns on their investments, the bondholders of the Estates of Burgundy also cared about liquidity. Had the estates only borrowed short term, the issue of liquidity would have been moot because whenever the loans came due, investors would have had the opportunity to reevaluate their portfolios. The estates, however, focused on long-term debt, and up to the 1740s at least the duration of these debts was increasing (from about six years prior to 1700 to 11 years). As a result, in the absence of any mechanism for reselling these debts, individuals were locked into long-term investments. Such constraints do not seem to have mattered to some investors—in particular to institutions that held their bonds for very long periods of time. Yet it seems to have been a concern for most potential individual lenders to the estates.

The secondary market allowed lenders to secure liquidity, and we can measure its extent in two ways. First, the Estates of Burgundy maintained meticulous records about their bondholders. Officials kept track of changes in ownership in their registers. In most cases, the information recorded was sufficient that we can ascertain whether contracts changed hands either

[37] For the listing of issues "en banque," see Davis and Cull, *International Capital Markets*.

[38] Given the referral activity uncovered by Hoffman et al., it is likely that Bro, the notary of *étude XCII* from 1766 to 1805 played an important role in transmitting information about the estates to other notaries.

through bequests or as the result of trading. Further, in their deliberations, the estates demonstrated a concern to facilitate the creation of a secondary market for their bonds. We can therefore match changes in policy with changes in the extent of the secondary market.

To ascertain the frequency of secondary trades in Burgundian debt we begin with a very simple calculation. Over the 120 years that our data span, we can ask: What was the likelihood that a bond was ever resold? The evidence is quite accurate after 1720, and somewhat less before. Officials of the estates spent less effort distinguishing between bequests and market transfers in the early period. Because both bequests and trades are counted together in our data in the earlier period, our evidence of a rise in secondary trades is in fact understated. For each year between 1660 and 1739, on average less than one outstanding contract in 200 was part of an exchange process. (See Table 4). But in the three decades that followed 1740, about 2 percent or more of the outstanding bonds were traded each year. From 1780 to 1789 the rate falls somewhat. Obviously, contracts signed after 1780 were unlikely to be traded before the Revolution.

More importantly the summary registers which we use do not contain all the secondary trades. For the period 1740–1779, when we add the turnover associated with the steady reimbursement policies of the estates to the resales, some 13 percent of all contracts were traded. To be sure the estates' bonds did not approach the liquidity offered by British consols at the same time—this is no surprise, as no other security in the world was even remotely as liquid. Burgundian bonds differed in two ways from British consols. Their total value was relatively trivial and they did not benefit from an organized exchange. Given the relationship between size of issue and liquidity observed in modern markets, it is likely that size explains more of the differences in liquidity than the secondary-market institutions. Hence it is perhaps not surprising that the turnover of the estates' bonds was not much different from what has been found for the early corporations on the London Stock Exchange.[39] By historical standards at least, the estates and the notaries were able to offer investors in estates bonds a non-negligible amount of liquidity.

The rise in secondary transactions after 1740 was largely the product of institutional changes promoted by the estates. As we have noted elsewhere, in that decade the estates began to market a large fraction of their debt through Parisian notaries.[40] As a result they had to contend not only with a different clientele of lenders, but with a very different legal environment. In Burgundy, long-term bonds were deemed moveable; they could not be pledged as collateral for debt, and therefore all private transfers, however informal, were legally binding (provided, of course, that the seller actually

[39] Carlos, Key, and Dupree, "Learning."

[40] Potter and Rosenthal, "Burgundian Estates' Bond Market," pp. 173–95.

TABLE 4
FREQUENCY OF SECONDARY TRADES BY ISSUE DATE

	Bonds Issued	Secondary Trades	Bonds Outstanding	Trades / Issues (percentage)	Trades per Year/ Outstanding (percentage)
1660–1679	382	13	133	3	0.49
1680–1699	1,673	48	534	3	0.45
1700–1719	4,555	97	1,966	2	0.25
1720–1739	1,331	110	768	8	0.72
1740–1759	3,548	557	1,343	16	2.07
1760–1779	5,497	1,037	1,929	19	2.69
1780–1790	3,577	671	3,823	19	1.76

Note: Bonds issued and secondary trades are the total number of bonds issued and the total number traded that are in our data set for the relevant 20 years. Bonds Outstanding is the period average. Because our sources change, turnover in the 1780s is likely to be undercounted.

owned the bond). The narrower clientele of bondholders in Burgundy also did not require any significant innovations in the institutional structure in order to trade bonds. The heavy presence of the relatively close-knit Dijonnais elite among Burgundian bondholders allowed for an informal exchange process to satisfy the rare cases in which someone needed to recover his capital in advance of reimbursement. Further, the Burgundian elite were regular investors in the bonds. Short of massive unanticipated demands for capital, each family could manage its portfolio of bonds simply by choosing the level of their net investments each year.[41]

Paris was another universe entirely. In the vast financial marketplace of Paris, there were few social or professional mechanisms for individuals to market specific types of debt. Further, given that each individual had a vast number of potential correspondents, it was unlikely that typical lenders would be well informed about anyone but their closest associates. Such lack of good information combined with the poor legal standing of secondary transfers made exchange processes difficult. Yet the demand for secondary transfers was higher in Paris than in Burgundy because few Parisian held such broad portfolios of specifically Burgundian bonds as did members of the Dijonnais elite. Finally, the expected life span of Burgundian bonds had increased from about six years in the seventeenth century to almost 14 years in the middle part of the eighteenth century. This in itself increased the demand for a mechanism to ease the development of a secondary market in Burgundian bonds.

A secondary market for Burgundian bonds arose spontaneously in Dijon because there were few legal obstacles to such trades and because these bonds dominated the market, hence each Dijon notary usually had potential buyers among his own clients. The estates appear to have thought that much the same would occur in Paris but that was not the case for legal reasons. In

[41] Such regular investors made nearly annual investments and were therefore the recipients of nearly annual reimbursements.

the capital, long-term loans were considered real estate, and as the custom of Paris prescribed, they could be pledged as collateral for other debts, for widows' portions, or for children's inheritances. Even more problematic, heirs of the original subscriber could request a return of the asset from a secondary buyer so long as they paid the transaction price. If the value of the asset rose, the heirs would be tempted to request a return. Clearly the legal nature of long-term loans in Paris made their resale less easy.[42] This problem plagued all annuity loans. Jurists and the crown had long ago solved the problem by inventing a legal fiction: reconstitutions. In these contracts the private parties to a secondary transfer shored up their transactions by transforming it into two formally separate transactions, a reimbursement and a new loan. Doing so required the participation of the issuer of the bond who borrowed from the new holder and reimbursed the original holder of the bond. The appearance of the original issuer in these resale contracts makes it appear as though he was offering buy-back services in lieu of a real secondary market—but this is no more than appearance. Indeed, both in the case of royal loans (where the practice was initiated) and in the case of Burgundian loans, the issuers made no effort to find new bondholders. The mechanism created a legal chasm between the creditors of the original bondholder and the new buyer.

The estates were not attuned to Parisian legal constraints and thus did not anticipate the problems created by the custom of Paris. Thus they initially did not authorize their agents to participate in reconstitution contracts in Paris. Yet faced with difficulty in marketing their bonds, they were quick to respond. In 1743 they announced that they would participate in drawing up reconstituted contracts.[43] Their decision had a dramatic impact because the rate of secondary trades quintupled in a decade. As Table 5 shows, contracts issued from the early 1730s through 1743 were infrequently resold. However, after the reform of 1743 they were more likely to be resold—indeed they were about as likely to be traded as were contracts issued in the 1770s. More precisely, for contracts issued in the 1730s trades that occurred in the first ten years from the date of issue (that is, mostly prior to 1743) account for a little more than a third of all trades. For contracts issued in the 1740s, trades that occurred in the decade following the initial issue accounted for nearly twice that proportion. Thus the reform of the secondary market was reflected in a large increase in the propensity to transfer contracts in the first ten years following their issue.

Yet the rise of the secondary market was not the only mechanism that the estates used to promote liquidity. Indeed the secondary market did have

[42] Secondary holders worried that they would buy a Burgundian *rente* from someone who had used it as collateral for some private debt that would then be defaulted upon. The creditor of the private debt contract could then sue the secondary holder of the Burgundian bondholder to recover the value of his loan.

[43] ADCO, C 4565, 12 March 1743.

TABLE 5
TRADES OF PARTICULAR VINTAGES

	Issue Date			
Trades in Years	1730–1734	1735–1739	1740–1744	1745–1749
1730–1734	3			
1735–1739	6	11		
1740–1744	7	3	20	
1745–1749	10	18	35	73
1750–1754	1	4	9	70
Total trades	28	36	66	143
Number of bonds issued	339	285	739	1,383
Share of trades in the first ten years to trades in the first 25 years (percentage)	33	38	65	58

Note: The data enumerate the number of secondary transfers for each five years for each vintage of debt.
Sources: The data were drawn from AD CO, registers,4583, 4584, 4585, 4586, 4587,4588, 4597, 4598, 4607, and 4615.

significant costs. Individual Parisians, for example, had to bear the costs of simply drawing up reconstitutions. In response, the estates decided in 1773 to provide further assistance to individuals who wanted to get rid of the bonds.[44] Officials of the estates argued that their unparalleled credit rating afforded them a unique advantage. Any creditor who had any difficulty getting rid of a Burgundian bond could simply contact the officers of the estates and they would be put in a reimbursement queue. Instead of simply randomly selecting bondholders for reimbursement each year, the estates would now first reimburse those individuals on the list and then turn to others to complete their reimbursement schedule. As long as the demand for early repayment was small (most investors were long-term investors) the estates could do so at little cost. This willingness to reimburse individuals on demand explains in part the decline in trades seen in the 1770s and 1780s.

The estates' declarations show that they perceived the demand for liquidity and that they could not provide it on their own. But there is also a direct measure of the value of secondary transactions to the estates. We can contrast the mean duration of contracts that were never traded until reimbursement and that of contracts that were part of one or more exchange processes.[45] Contracts that were not resold were reimbursed significantly sooner than contracts that had been resold. This result is both statistically and substantively important. At peak, a traded contract was outstanding almost twice as long as a contract of the same vintage that was not resold (17 years

[44] ADCO, C 4569, 18 February 1773, Déliberations des Élus.
[45] We ignore here the difference between contracts that were only traded once and those that were traded multiple times. It appears, though, that contracts traded more than once were reimbursed, more often than not, after those that were traded only once. Each trade lengthened the life of the bond.

versus 8.5 years). After 1740 when trades became common, they extended average duration by five years or nearly 50 percent. It is clear, then, why the estates opted to assist in the establishment of a secondary market. Such extended contracts gave them added flexibility in the management of their financial affairs.

The estates did help ease the process of providing opportunities for their bondholders to sell their bonds, but one should not overstate the importance of these innovations. In fact it is likely that their innovations were prompted by broader developments in credit markets. First, despite its catastrophic conclusion, France's experiment with paper money in the 1710s (the Law affair) had educated Parisians as to the value of a secondary market in financial instruments.[46] Second, in the 1740s the crown decided to sell some of its debts as term bearer bonds. Though these debts were similar to those of the estates, the crown gave them the legal status of movable assets, thus easing their resale. From the estates' point of view, this likely reduced the relative attractiveness of their bonds, possibly threatening their political position. Thus the estates responded by offering a mechanism to ease the legal uncertainties behind debt transfers in Paris. Third, the two decades after the end of the Law affair saw the rise of notaries as important financial intermediaries in Paris. They specialized in placing long-term loans, and they were the ones who actually ran the secondary market for estates debts. Had the estates been the only borrower wishing to assist its lenders with trades, it is unlikely that Parisian notaries would have found it worthwhile to acquire the informational base needed to broker such transactions.[47] Thus the estates alone could not have caused the institutional changes necessary to ease the trade in their bonds in Paris. The institutional innovations that characterized the Paris market in the 1740s thus diffused to Dijon and to the estates' debt administration. This reinforces our suspicion that long-term bond markets were less geographically isolated from each other than has heretofore been suggested.

CONCLUSION

The estates' own financial innovations reflected the informal arrangements of the capital's notaries. In Dijon, however, innovation by notaries was stifled by the very size and publicity of the estates' borrowing. In both markets formal and informal institutions co-evolved but the relationships between borrowers and lenders were different in each market. In fact, even though credit remained personal, there were at least two more degrees of separation between the estates and their creditors in Paris than in Dijon. Reaching these more distant lenders mattered greatly to the estates because

[46] Hoffman et al., *Priceless Markets*, Ch. 6.
[47] Hoffman et al., *Priceless Markets*, Ch. 8.

it allowed them to borrow three times as much as when they had restricted their solicitations to Burgundians.

Studying other large borrowers would yield further information about the process of financial integration in Old Regime France. Other provincial estates, the Assembly of the Clergy, and the great aristocratic households were all heavily involved in credit, and each could choose among several different markets. The timing of their decision to borrow in Paris would tell us much about the link between financial innovation and financial concentration.

By shining a bright light on the intermediation of debt, the records of the Estates of Burgundy point to the importance of scale effects in financial intermediation. Though much has been written about the importance of large cities in European development in general, and of London in particular, less attention has been paid to the discontinuities inherent in financial networks. Though Dijon was one of the 25 largest town in France in the eighteenth century, the organization of its financial markets was closer to that of a small market town than it was to that of Paris.[48]

For Dijon one could argue that the very concentration of demand for funds in a reputable borrower reduced the need for intermediation. Clearly had Dijon experienced the same total demand but from a much more dispersed set of borrowers the need for intermediation would have been much greater. Yet such a counterfactual argument neglects the fact that in the absence of the estates, total borrowing would undoubtedly have been less in Dijon. Further, the size of the estates' debts permitted the rise of secondary market, something that did not occur in markets with purely private debts and which did increase the work of intermediaries.

In Paris by the 1750s, the privately possessed information of notaries was critical to the credit market. Nobody could borrow extensively without the assistance of notaries. In contrast, in Dijon as in many other small markets there were well-known borrowers who had little need for financial services. It is our good fortune that the estates straddled these two markets to reveal their different modes of functioning.

During what is frequently thought to be a period of institutional stagnation in France, the estates achieved a remarkable broadening of their clientele of investors and a consequent massive increase in indebtedness. Thus absolutism in itself did not prevent the development of large capital markets, although it may have constrained them in way further research may uncover. Nor can Roman or customary law be blamed for the differential development of credit in France and Britain. French legal institutions proved flexible enough to accommodate significant financial innovations after the 1720s.

[48] Lepetit, *Les villes*, p. 450.

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